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RAW SEQUENCE LISTING

DATE: 01/31/2002

PATENT APPLICATION: US/09/922,226

TIME: 12:53:43

Input Set : A:\AR4681.txt

Output Set: N:\CRF3\01312002\I922226.raw

4 <110> APPLICANT: Zhao, Yi
 5 Thacher, Scott M.
 6 Xiao, Jia-Hao
 7 Kusari, Jyotirmoy
 8 Chandraratna, Roshantha A.
 10 <120> TITLE OF INVENTION: Methods of Screening For Compounds That
 11 Modulate Hormone Receptor Activity
 14 <130> FILE REFERENCE: P-AR 4681
 16 <140> CURRENT APPLICATION NUMBER: US 09/922,226
 C--> 17 <141> CURRENT FILING DATE: 2002-01-09
 19 <150> PRIOR APPLICATION NUMBER: US 60/284,797
 20 <151> PRIOR FILING DATE: 2001-04-18
 22 <160> NUMBER OF SEQ ID NOS: 191
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 462
 28 <212> TYPE: PRT
 29 <213> ORGANISM: Homo sapiens
 31 <400> SEQUENCE: 1
 32 Met Asp Thr Lys His Phe Leu Pro Leu Asp Phe Ser Thr Gln Val Asn
 33 1 5 10 15
 34 Ser Ser Leu Thr Ser Pro Thr Gly Arg Gly Ser Met Ala Ala Pro Ser
 35 20 25 30
 36 Leu His Pro Ser Leu Gly Pro Gly Ile Gly Ser Pro Gly Gln Leu His
 37 35 40 45
 38 Ser Pro Ile Ser Thr Leu Ser Ser Pro Ile Asn Gly Met Gly Pro Pro
 39 50 55 60
 40 Phe Ser Val Ile Ser Ser Pro Met Gly Pro His Ser Met Ser Val Pro
 41 65 70 75 80
 42 Thr Thr Pro Thr Leu Gly Phe Ser Thr Gly Ser Pro Gln Leu Ser Ser
 43 85 90 95
 44 Pro Met Asn Pro Val Ser Ser Ser Glu Asp Ile Lys Pro Pro Leu Gly
 45 100 105 110
 46 Leu Asn Gly Val Leu Lys Val Pro Ala His Pro Ser Gly Asn Met Ala
 47 115 120 125
 48 Ser Phe Thr Lys His Ile Cys Ala Ile Cys Gly Asp Arg Ser Ser Gly
 49 130 135 140
 50 Lys His Tyr Gly Val Tyr Ser Cys Glu Gly Cys Lys Gly Phe Phe Lys
 51 145 150 155 160
 52 Arg Thr Val Arg Lys Asp Leu Thr Tyr Thr Cys Arg Asp Asn Lys Asp
 53 165 170 175
 54 Cys Leu Ile Asp Lys Arg Gln Arg Asn Arg Cys Gln Tyr Cys Arg Tyr
 55 180 185 190

ENTERED

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```

56 Gln Lys Cys Leu Ala Met Gly Met Lys Arg Glu Ala Val Gln Glu Glu
57      195      200      205
58 Arg Gln Arg Gly Lys Asp Arg Asn Glu Asn Glu Val Glu Ser Thr Ser
59      210      215      220
60 Ser Ala Asn Glu Asp Met Pro Val Glu Arg Ile Leu Glu Ala Glu Leu
61 225      230      235      240
62 Ala Val Glu Pro Lys Thr Glu Thr Tyr Val Glu Ala Asn Met Gly Leu
63      245      250      255
64 Asn Pro Ser Ser Pro Asn Asp Pro Val Thr Asn Ile Cys Gln Ala Ala
65      260      265      270
66 Asp Lys Gln Leu Phe Thr Leu Val Glu Trp Ala Lys Arg Ile Pro His
67      275      280      285
68 Phe Ser Glu Leu Pro Leu Asp Asp Gln Val Ile Leu Leu Arg Ala Gly
69      290      295      300
70 Trp Asn Glu Leu Leu Ile Ala Ser Phe Ser His Arg Ser Ile Ala Val
71 305      310      315      320
72 Lys Asp Gly Ile Leu Leu Ala Thr Gly Leu His Val His Arg Asn Ser
73      325      330      335
74 Ala His Ser Ala Gly Val Gly Ala Ile Phe Asp Arg Val Leu Thr Glu
75      340      345      350
76 Leu Val Ser Lys Met Arg Asp Met Gln Met Asp Lys Thr Glu Leu Gly
77      355      360      365
78 Cys Leu Arg Ala Ile Val Leu Phe Asn Pro Asp Ser Lys Gly Leu Ser
79      370      375      380
80 Asn Pro Ala Glu Val Glu Ala Leu Arg Glu Lys Val Tyr Ala Ser Leu
81 385      390      395      400
82 Glu Ala Tyr Cys Lys His Lys Tyr Pro Glu Gln Pro Gly Arg Phe Ala
83      405      410      415
84 Lys Leu Leu Leu Arg Leu Pro Ala Leu Arg Ser Ile Gly Leu Lys Cys
85      420      425      430
86 Leu Glu His Leu Phe Phe Phe Lys Leu Ile Gly Asp Thr Pro Ile Asp
87      435      440      445
88 Thr Phe Leu Met Glu Met Leu Glu Ala Pro His Gln Met Thr
89      450      455      460
92 <210> SEQ ID NO: 2
93 <211> LENGTH: 533
94 <212> TYPE: PRT
95 <213> ORGANISM: Homo sapiens
97 <400> SEQUENCE: 2
98 Met Ser Trp Ala Ala Arg Pro Pro Phe Leu Pro Gln Arg His Ala Ala
99 1      5      10      15
100 Gly Gln Cys Gly Pro Val Gly Val Arg Lys Glu Met His Cys Gly Val
101      20      25      30
102 Ala Ser Arg Trp Arg Arg Arg Arg Pro Trp Leu Asp Pro Ala Ala Ala
103      35      40      45
104 Ala Ala Ala Ala Val Ala Gly Gly Glu Gln Gln Thr Pro Glu Pro Glu
105      50      55      60
106 Pro Gly Glu Ala Gly Arg Asp Gly Met Gly Asp Ser Gly Arg Asp Ser
107 65      70      75      80

```

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Input Set : A:\AR4681.txt

Output Set: N:\CRF3\01312002\I922226.raw

```

108 Arg Ser Pro Asp Ser Ser Ser Pro Asn Pro Leu Pro Gln Gly Val Pro
109                               85                               90                               95
110 Pro Pro Ser Pro Pro Gly Pro Pro Leu Pro Pro Ser Thr Ala Pro Ser
111                               100                               105                               110
112 Leu Gly Gly Ser Gly Ala Pro Pro Pro Pro Met Pro Pro Pro Pro
113                               115                               120                               125
114 Leu Gly Ser Pro Phe Pro Val Ile Ser Ser Ser Met Gly Ser Pro Gly
115                               130                               135                               140
116 Leu Pro Pro Pro Ala Pro Pro Gly Phe Ser Gly Pro Val Ser Ser Pro
117 145                               150                               155                               160
118 Gln Ile Asn Ser Thr Val Ser Leu Pro Gly Gly Gly Ser Gly Pro Pro
119                               165                               170                               175
120 Glu Asp Val Lys Pro Pro Val Leu Gly Val Arg Gly Leu His Cys Pro
121                               180                               185                               190
122 Pro Pro Pro Gly Gly Pro Gly Ala Gly Lys Arg Leu Cys Ala Ile Cys
123                               195                               200                               205
124 Gly Asp Arg Ser Ser Gly Lys His Tyr Gly Val Tyr Ser Cys Glu Gly
125                               210                               215                               220
126 Cys Lys Gly Phe Phe Lys Arg Thr Ile Arg Lys Asp Leu Thr Tyr Ser
127 225                               230                               235                               240
128 Cys Arg Asp Asn Lys Asp Cys Thr Val Asp Lys Arg Gln Arg Asn Arg
129                               245                               250                               255
130 Cys Gln Tyr Cys Arg Tyr Gln Lys Cys Leu Ala Thr Gly Met Lys Arg
131                               260                               265                               270
132 Glu Ala Val Gln Glu Glu Arg Gln Arg Gly Lys Asp Lys Asp Gly Asp
133                               275                               280                               285
134 Gly Glu Gly Ala Gly Gly Ala Pro Glu Glu Met Pro Val Asp Arg Ile
135                               290                               295                               300
136 Leu Glu Ala Glu Leu Ala Val Glu Gln Lys Ser Asp Gln Gly Val Glu
137 305                               310                               315                               320
138 Gly Pro Gly Gly Thr Gly Gly Ser Gly Ser Ser Pro Asn Asp Pro Val
139                               325                               330                               335
140 Thr Asn Ile Cys Gln Ala Ala Asp Lys Gln Leu Phe Thr Leu Val Glu
141                               340                               345                               350
142 Trp Ala Lys Arg Ile Pro His Phe Ser Ser Leu Pro Leu Asp Asp Gln
143                               355                               360                               365
144 Val Ile Leu Leu Arg Ala Gly Trp Asn Glu Leu Leu Ile Ala Ser Phe
145                               370                               375                               380
146 Ser His Arg Ser Ile Asp Val Arg Asp Gly Ile Leu Leu Ala Thr Gly
147 385                               390                               395                               400
148 Leu His Val His Arg Asn Ser Ala His Ser Ala Gly Val Gly Ala Ile
149                               405                               410                               415
150 Phe Asp Arg Val Leu Thr Glu Leu Val Ser Lys Met Arg Asp Met Arg
151                               420                               425                               430
152 Met Asp Lys Thr Glu Leu Gly Cys Leu Arg Ala Ile Ile Leu Phe Asn
153                               435                               440                               445
154 Pro Asp Ala Lys Gly Leu Ser Asn Pro Ser Glu Val Glu Val Leu Arg
155                               450                               455                               460
156 Glu Lys Val Tyr Ala Ser Leu Glu Thr Tyr Cys Lys Gln Lys Tyr Pro

```

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Input Set : A:\AR4681.txt

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```

157 465          470          475          480
158 Glu Gln Gln Gly Arg Phe Ala Lys Leu Leu Leu Arg Leu Pro Ala Leu
159          485          490          495
160 Arg Ser Ile Gly Leu Lys Cys Leu Glu His Leu Phe Phe Phe Lys Leu
161          500          505          510
162 Ile Gly Asp Thr Pro Ile Asp Thr Phe Leu Met Glu Met Leu Glu Ala
163          515          520          525
164 Pro His Gln Leu Ala
165          530
168 <210> SEQ ID NO: 3
169 <211> LENGTH: 463
170 <212> TYPE: PRT
171 <213> ORGANISM: Homo sapiens
173 <400> SEQUENCE: 3
174 Met Tyr Gly Asn Tyr Ser His Phe Met Lys Phe Pro Ala Gly Tyr Gly
175 1          5          10          15
176 Gly Ser Pro Gly His Thr Gly Ser Thr Ser Met Ser Pro Ser Ala Ala
177          20          25          30
178 Leu Ser Thr Gly Lys Pro Met Asp Ser His Pro Ser Tyr Thr Asp Thr
179          35          40          45
180 Pro Val Ser Ala Pro Arg Thr Leu Ser Ala Val Gly Thr Pro Leu Asn
181          50          55          60
182 Ala Leu Gly Ser Pro Tyr Arg Val Ile Thr Ser Ala Met Gly Pro Pro
183 65          70          75          80
184 Ser Gly Ala Leu Ala Ala Pro Pro Gly Ile Asn Leu Val Ala Pro Pro
185          85          90          95
186 Ser Ser Gln Leu Asn Val Val Asn Ser Val Ser Ser Ser Glu Asp Ile
187          100          105          110
188 Lys Pro Leu Pro Gly Leu Pro Gly Ile Gly Asn Met Asn Tyr Pro Ser
189          115          120          125
190 Thr Ser Pro Gly Ser Leu Val Lys His Ile Cys Ala Ile Cys Gly Asp
191          130          135          140
192 Arg Ser Ser Gly Lys His Tyr Gly Val Tyr Ser Cys Glu Gly Cys Lys
193 145          150          155          160
194 Gly Phe Phe Lys Arg Thr Ile Arg Lys Asp Leu Ile Tyr Thr Cys Arg
195          165          170          175
196 Asp Asn Lys Asp Cys Leu Ile Asp Lys Arg Gln Arg Asn Arg Cys Gln
197          180          185          190
198 Tyr Cys Arg Tyr Gln Lys Cys Leu Val Met Gly Met Lys Arg Glu Ala
199          195          200          205
200 Val Gln Glu Glu Arg Gln Arg Ser Arg Glu Arg Ala Glu Ser Glu Ala
201          210          215          220
202 Glu Cys Ala Thr Ser Gly His Glu Asp Met Pro Val Glu Arg Ile Leu
203 225          230          235          240
204 Glu Ala Glu Leu Ala Val Glu Pro Lys Thr Glu Ser Tyr Gly Asp Met
205          245          250          255
206 Asn Met Glu Asn Ser Thr Asn Asp Pro Val Thr Asn Ile Cys His Ala
207          260          265          270
208 Ala Asp Lys Gln Leu Phe Thr Leu Val Glu Trp Ala Lys Arg Ile Pro

```

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Input Set : A:\AR4681.txt

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```

209           275           280           285
210 His Phe Ser Asp Leu Thr Leu Glu Asp Gln Val Ile Leu Leu Arg Ala
211           290           295           300
212 Gly Trp Asn Glu Leu Leu Ile Ala Ser Phe Ser His Arg Ser Val Ser
213 305           310           315           320
214 Val Gln Asp Gly Ile Leu Leu Ala Thr Gly Leu His Val His Arg Ser
215           325           330           335
216 Ser Ala His Ser Ala Gly Val Gly Ser Ile Phe Asp Arg Val Leu Thr
217           340           345           350
218 Glu Leu Val Ser Lys Met Lys Asp Met Gln Met Asp Lys Ser Glu Leu
219           355           360           365
220 Gly Cys Leu Arg Ala Ile Val Leu Phe Asn Pro Asp Ala Lys Gly Leu
221           370           375           380
222 Ser Asn Pro Ser Glu Val Glu Thr Leu Arg Glu Lys Val Tyr Ala Thr
223 385           390           395           400
224 Leu Glu Ala Tyr Thr Lys Gln Lys Tyr Pro Glu Gln Pro Gly Arg Phe
225           405           410           415
226 Ala Lys Leu Leu Leu Arg Leu Pro Ala Leu Arg Ser Ile Gly Leu Lys
227           420           425           430
228 Cys Leu Glu His Leu Phe Phe Phe Lys Leu Ile Gly Asp Thr Pro Ile
229           435           440           445
230 Asp Thr Phe Leu Met Glu Met Leu Glu Thr Pro Leu Gln Ile Thr
231           450           455           460
234 <210> SEQ ID NO: 4
235 <211> LENGTH: 57
236 <212> TYPE: PRT
237 <213> ORGANISM: Homo sapiens
239 <220> FEATURE:
240 <221> NAME/KEY: VARIANT
241 <222> LOCATION: (1)...(57)
242 <223> OTHER INFORMATION: Xaa = Any Amino Acid
244 <400> SEQUENCE: 4
245 Gly Lys His Tyr Gly Val Tyr Ser Cys Glu Gly Cys Lys Gly Phe Phe
246 1           5           10           15
247 Lys Arg Thr Val Arg Xaa Asp Leu Thr Tyr Thr Cys Arg Asp Asn Lys
248           20           25           30
249 Asp Cys Leu Ile Asp Lys Arg Gln Arg Asn Arg Cys Gln Tyr Cys Arg
250           35           40           45
251 Tyr Gln Lys Cys Leu Ala Met Gly Met
252           50           55
255 <210> SEQ ID NO: 5
256 <211> LENGTH: 57
257 <212> TYPE: PRT
258 <213> ORGANISM: T. cystophoro
260 <400> SEQUENCE: 5
261 Val Lys His Tyr Gly Val Phe Ala Cys Glu Gln Cys Lys Gly Phe Phe
262 1           5           10           15
263 Lys Arg Ser Val Arg Asn Asn Arg Lys Tyr Ser Cys Leu Gly Lys Arg
264           20           25           30

```

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/922,226

DATE: 01/31/2002

TIME: 12:53:44

Input Set : A:\AR4681.txt

Output Set: N:\CRF3\01312002\I922226.raw

L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:247 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44
L:758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
L:838 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49
L:863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50
L:888 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
L:999 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61
L:1009 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (62) SEQUENCE:
L:1017 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (63) SEQUENCE:
L:1053 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65
L:1546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102
L:1697 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:113
L:2212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137
L:2214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137
L:2216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137
L:2218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137
L:2239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138
L:2241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138
L:2243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138
L:2245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138
L:2247 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138
L:2249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138
L:2251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138
L:2272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139
L:2274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139
L:2276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139
L:2278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139
L:2280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139
L:2301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2303 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2336 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:2501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:157